



# (12) United States Patent

Oses et al.

(10) Patent No.:

US 6,265,373 B1

(45) Date of Patent:

Jul. 24, 2001

## (54) COMPOSITION COMPRISING A MIXTURE OF ALKOXYLATED MONO-, DI- AND TRIGLYCERIDES AND GLYCERINE

(75) Inventors: Maria Jose Bermejo Oses, Viladecans;

Miguel Mundo Blanch, Gurb; Nuria Siscart Laguna; Pilar Castan Barberan, both of Barcelona; Josep

Vilaret Ferrer, Santa Maria Martorelles, all of (ES)

Assignee: Kao Corporation S.A., Barbera de

Valles (ES)

Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

Appl. No.: 09/545,868 (21)

(22)Filed: Apr. 7, 2000

(30)Foreign Application Priority Data

٠, ,				•	
Apr.	13, 1999	(EP)			99 106 233
(52)	U.S. Cl.				510/506
(58)	Field of	Search	1	5	54/149, 151,
				554/227, 169, 1	163: 510/506

#### (56)References Cited

## U.S. PATENT DOCUMENTS

2,678,935	*	5/1954	Sundberg et al 260/410.6
3,435,024	*	3/1969	Nobile et al 260/210
4,115,415	*	9/1978	Yoshihara et al 260/410
4,600,539	*	7/1986	Hoppe et al 260/410.7
4,681,900	*	7/1987	Iwasaki 514/786
4,861,613	*	8/1989	White et al 426/611
4,983,329	*	1/1991	Cooper 260/410.7
5,175,323	*	12/1992	Cooper 554/164
5,399,728	*	3/1995	Cooper 554/149
5,610,130	*	3/1997	Thomas et al 510/383
5,665,689	*	9/1997	Durbut 510/365
5,861,367	*	1/1999	Blanvalet et al 510/365

### FOREIGN PATENT DOCUMENTS

0 579 887 A1 1/1994 (EP)

0 586 323 A1 3/1994 (EP). 1045021 \* 10/2000 (EP). WO 95/23204 8/1995 (WO). WO 98/16605 4/1998 (WO).

\* cited by examiner

Primary Examiner-John Hardee

(74) Attorney, Agent, or Firm-Nath & Associates PLLC;

Gary M. Nath; Jerald L. Meyer

**ABSTRACT** 

The present invention relates to a composition comprising a mixture of alkoxylated mono-, di-, and triglycerides and glycerine of the following formula

R' representing H or CH<sub>3</sub>, and each of m, n, and l independently representing a number from 0 to 4, the sum of m, n and l being in the range of from 1 to 4, each of B1, B2, and B3 representing H or

wherein R represents an alkyl or alkenyl group having 6 to 22 carbon atoms.; and the weight ratio of triglyceride/diglyceride/monoglyceride being 46 to 90/9 to 35/1 to 15.

The invention also relates to methods for the preparation of this composition, to detergent compositions comprising this composition, and to the use of the composition as surfactant or co-surfactant in detergent compositions.

11 Claims, No Drawings